WHAT IS CLAIMED IS:

1. A method for assembling a gas turbine engine, said method comprising:

coupling a combustor including a dome assembly and a combustor liner that extends downstream from the dome assembly to a combustor casing that is positioned radially outwardly from the combustor;

coupling a ring support that includes a first radial flange, a second radial flange, and a plurality of beams that extend therebetween to the combustor casing; and

coupling a primer nozzle including an injection tip to the combustor such that the primer nozzle extends axially through the dome assembly such that fuel may be discharged from the primer nozzle into the combustor during engine start-up operating conditions.

2. A method in accordance with Claim 1 wherein coupling a primer nozzle including an injection tip to the combustor further comprises coupling a primer nozzle to the combustor such that fuel is discharged axially from the primer nozzle into the combustor in a direction that is substantially parallel to a centerline axis extending through the combustor.

3. A method in accordance with Claim 1 wherein coupling a primer nozzle including an injection tip to the combustor further comprises coupling a primer nozzle to the combustor such that the primer nozzle extends through the ring support and includes a shroud that extends circumferentially around the primer nozzle injection tip.

4. A method in accordance with Claim 1 wherein coupling a primer nozzle including an injection tip to the combustor further comprises coupling an air source to the primer nozzle such that cooling air supplied to the primer nozzle

injection tip is metered by a plurality of openings extending through a shroud extending circumferentially around the primer nozzle injection tip.

5. A method in accordance with Claim 1 further comprising coupling an air source to the primer nozzle to facilitate purging residual fuel from the primer nozzle into the combustor during pre-determined nozzle operations.

6. A method in accordance with Claim 1 wherein coupling a primer nozzle including an injection tip to the combustor further comprises threadably coupling the primer nozzle to the combustor case such that a shoulder extending from the primer nozzle maintains the orientation of the primer nozzle with respect to the combustor.

7. A primer nozzle for a gas turbine engine combustor including a centerline axis, said primer nozzle comprising:

an inlet;

an injection tip for discharging fuel into said combustor in a direction that is substantially parallel to the gas turbine engine centerline axis;

a body extending between said inlet and said injection tip, said body comprising at least one annular projection for coupling said nozzle to said body such that said primer nozzle is positioned relative to the combustor; and

a shroud extending around said injection tip and around at least a portion of said body such that a gap is defined between said shroud and at least one of said body and said injection tip, said shroud comprising a plurality of circumferentially-spaced openings for metering cooling air supplied to said injection tip.

8. A primer nozzle in accordance with Claim 7 wherein said primer nozzle configured to supply fuel to the gas turbine engine combustor only during engine start-up operating conditions.

9. A primer nozzle in accordance with Claim 7 wherein said shroud further comprises a shroud tip extending around said injection tip, said shroud tip comprising a plurality of cooling openings extending therethrough to facilitate film cooling said injection tip.

10. A primer nozzle in accordance with Claim 7 wherein said shroud further comprises a shroud tip extending around said injection tip, said shroud tip is frusto-conical.

11. A primer nozzle in accordance with Claim 10 wherein said shroud plurality of circumferentially-spaced openings facilitate limiting an airflow therethrough if said shroud tip deteriorates.

12. A primer nozzle in accordance with Claim 7 wherein said primer nozzle inlet is coupled to a bypass air source for purging residual fuel into the combustor from said nozzle during pre-determined combustor operating conditions.

13. A combustion system for a gas turbine engine, said combustion system comprising:

a combustor comprising a dome assembly and a combustor liner extending downstream from said dome assembly, said combustor liner defining a combustion chamber therein, said combustor further comprising a centerline axis;

a combustor casing extending around said combustor; and

a primer nozzle extending axially through said combustor casing and said dome assembly for supplying fuel into said combustor along said combustor centerline axis during engine start-up operating conditions.

14. A combustion system in accordance with Claim 13 further comprising an annular support ring comprising a first radial flange, a second radial flange axially spaced from said first radial flange, and a plurality of circumferentially-spaced beams extending between said first radial flange and said second radial flange, said combustor casing coupled to said annular support ring.

15. A combustion system in accordance with Claim 13 wherein said primer nozzle comprises an annular shoulder, said primer nozzle positioned relative to said combustor casing by said shoulder.

16. A combustion system in accordance with Claim 15 wherein said primer nozzle comprises an injection tip, an inlet, and a body extending therebetween, said injection tip for discharging fuel into said combustor in a direction that is substantially parallel to said combustor centerline axis.

17. A combustion system in accordance with Claim 13 wherein said primer nozzle comprises an injection tip, an inlet, a body extending between said tip and inlet, and a shroud extending circumferentially around said injection tip and around at least a portion of said body such that a gap is defined between said shroud and at least one of said body and said injection tip,

18. A combustion system in accordance with Claim 17 wherein said shroud comprises a plurality of circumferentially-spaced metering openings extending therethrough, said metering openings for metering a flow of cooling air to said injection tip.

19. A combustion system in accordance with Claim 17 wherein said shroud comprises a frusto-conical tip.

20. A combustion system in accordance with Claim 13 wherein said primer nozzle is coupled to an air source used for purging residual fuel into the combustor from said primer nozzle during pre-determined combustor operating conditions.